INDUSTRIAL HYGIENE SERVICES
MANAGEMENT | TRAINING | LAB SERVICES
www.NVLLABS.com

September 5, 2014

Shimon Mizrahi
Rainier Commons LLC
918 S. Horton Street, Suite 1018
Seattle, WA 98134

Subject: **Catch Basin Sampling for IPWP1- During Work for Buildings 10, 11**
Aqueous and Sediment Sampling
Rainier Commons, LLC

Site Address: 3100 Airport Way S, Seattle, WA

NVL Project#: 2012-494

Dear Mr. Mizrahi:

Rainier Commons, LLC retained NVL Laboratories to conduct the sampling at their Old Rainier Brewery site located at 3100 Airport Way South, Seattle, Washington and this letter has been prepared to convey the results.

NVL Labs conducted the during-work round of sampling on August 18th, 2014. The samples were collected at roughly 11:00 AM. No precipitation had occurred that day (http://www.nws.noaa.gov). NVL Labs proceeded to open and inspect the catch basins referred to as CB1 and CB3 as well as the manhole referred to as MH6 on the attached figure (attachment A). These stormwater collection points are located west of buildings 10 and 11, where the work associated with the IPWP was in progress.

At the time of the sampling, following removal of the storm drain grates, CB1 was found to be dry with no water present and no sediment present. Both water and sediment adequate for sampling were present in CB3. MH6 was found to have adequate water for sampling but inadequate sediment. Accordingly, no samples were collected from CB1, both sediment and aqueous samples were collected from CB3, and an aqueous sample but no sediment sample was collected from MH6. Photos of the exposed catch basins and manhole were taken to document their condition. (See Attachment B)

Sampling Location	Stormwater Present?	Aqueous Sample Collected?	Sediment Present?	Sediment Sample Collected?
Catch Basin 1	No	No	No	No
Catch Basin 3	Yes	Yes	Yes	Yes
Man Hole 6	Yes	Yes	No	No

Samples were collected as per the Condition 6: Catch Basin Sampling Plan for IPWP1.

The samples were transported to Fremont Analytical Laboratories under a chain-of-custody protocol before being analyzed for PCBs by EPA Method 8082. Additionally, the sediment samples were also

analyzed for the presence of the metals contained in the blasting media being utilized for the abatement work; Chromium (Cr), Copper (Cu), Nickel (Ni), and Zinc (Zn).

Attached to this letter are a copy of the laboratory reports dated August 25th, 2014, and the site plan that shows the sample locations. (Attachments C and A)

Aqueous Sample Results:

Laboratory analysis of the aqueous samples from CB3 and MH6 found total PBC concentrations of 0.898 micrograms per liter and 4.09 micrograms per liter, respectively. Both of the aqueous samples were found to have PCB concentrations above the aqueous screening limit of 0.1 micrograms per liter (ug/L) for total PCB Arochlors.

Sampling Location	Aqueous PCB Screening Limit (Total Alochors)	Sample Result	Result Above Screening Limit?
Catch Basin 3	.1 ug/L	0.898 ug/L	YES
Manhole 6	.1 ug/L	4.09 ug/L	YES

Sediment Sample Results:

PCBs:

Laboratory analysis of the sediment sample from CB3 found detectable levels of PCB Arochlors. Total PCB concentrations of 12.3 parts per million (ppm) were detected in the sample collected from CB3. The sediment PCB concentration is above the sediment screening limit of 1.0 ppm for total PCB Arochlors.

Sampling Location	Sediment PCB Screening Limit (Total Alochors)	Sample Result Total Alochors	Result Above Screening Limit?
Catch Basin 3	1.0 ppm	12.3 ppm	YES

Metals:

Laboratory analysis of the sediment sample from CB3 found detectable levels of metals.

Chromium (Cr)

Sampling Location	Sample Result
Catch Basin 3	218 ppm

Copper (Cu)

Sampling Location	Sample Result
Catch Basin 3	609 ppm

Nickel (Ni)

Sampling Location	Sample Result
Catch Basin 3	311 ppm

Zinc (Zn)

Sampling Location	Sample Result
Catch Basin 3	5,570 ppm

Prepared By

Marcus Gladden
Industrial Hygienist
NVL Laboratories

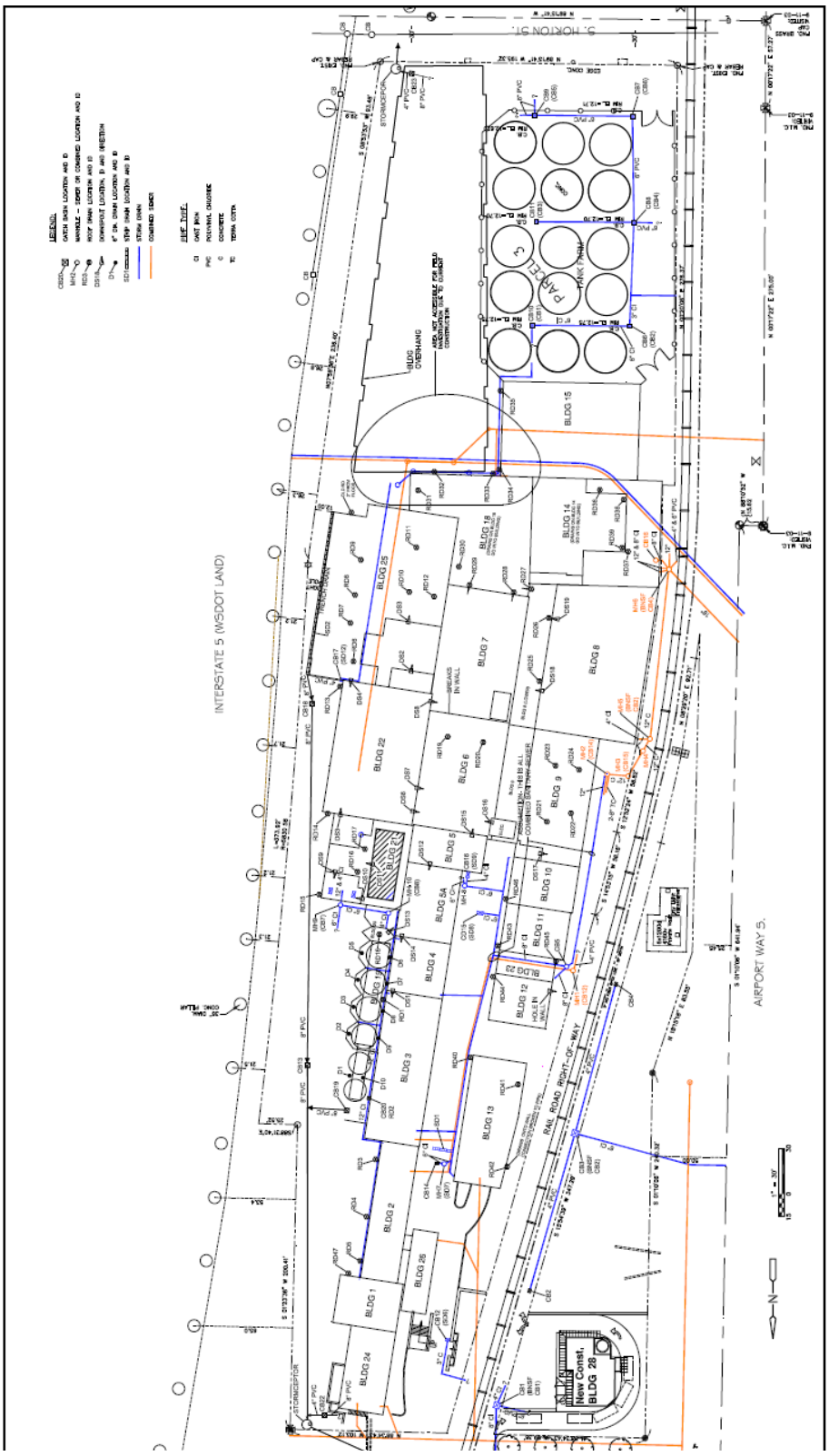
Reviewed By

Munaf Khan
Project Manager
Laboratory Director / President

Attachments:

A: Site Map with Sample Locations
B: Site Observation Photos
C: Laboratory Testing Report, Fremont Analytical Labs Batch No. 1408157

Attachment A: Site Map



Attachment B: Site Observation Photos

Catch Basin 1
Inadequate water and sediment for sampling were found in catch basin 1.

Catch Basin 3
Adequate water sand sediment for sampling were found in catch basin 3.

Manhole 6
Inadequate sediment for sampling was found in manhole 6. Adequate water was present and an aqueous sample was collected here.

Attachment C: Laboratory Testing Report, Fremont Analytical Labs Batch No. 1408157

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

NVL Labs, Inc.
Marcus Gladden
4708 Aurora Ave. N.
Seattle, WA 98103

RE: 2012-494
Lab ID: 1408157

August 25, 2014

Attention Marcus Gladden:

Fremont Analytical, Inc. received 3 sample(s) on 8/18/2014 for the analyses presented in the following report.

Polychlorinated Biphenyls (PCB) by EPA 8082
Sample Moisture (Percent Moisture)
Total Metals by EPA Method 6020

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
President

Date: *08/25/2014*

CLIENT: NVL Labs, Inc.
Project: 2012-494
Lab Order: 1408157

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1408157-001	81814-CB3-A	08/18/2014 11:00 AM	08/18/2014 2:40 PM
1408157-002	81814-CB6-A	08/18/2014 11:00 AM	08/18/2014 2:40 PM
1408157-003	81814-CB3-S	08/18/2014 11:00 AM	08/18/2014 2:40 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **1408157**
Date: **8/25/2014**

CLIENT: NVL Labs, Inc.
Project: 2012-494

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Analytical Report

WO#: **1408157**
Date Reported: **8/25/2014**

Client: NVL Labs, Inc.
Collection Date: 8/18/2014 11:00:00 AM
Project: 2012-494
Lab ID: 1408157-001
Matrix: Water
Client Sample ID: **81814-CB3-A**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polychlorinated Biphenyls (PCB) by EPA 8082				Batch ID: 8458		Analyst: NG
Aroclor 1016	0.440	0.200		µg/L	1	8/22/2014 6:27:00 PM
Aroclor 1221	ND	0.200		µg/L	1	8/22/2014 6:27:00 PM
Aroclor 1232	ND	0.200		µg/L	1	8/22/2014 6:27:00 PM
Aroclor 1242	ND	0.200		µg/L	1	8/22/2014 6:27:00 PM
Aroclor 1248	ND	0.200		µg/L	1	8/22/2014 6:27:00 PM
Aroclor 1254	ND	0.200		µg/L	1	8/22/2014 6:27:00 PM
Aroclor 1260	0.459	0.200		µg/L	1	8/22/2014 6:27:00 PM
Aroclor 1262	ND	0.200		µg/L	1	8/22/2014 6:27:00 PM
Aroclor 1268	ND	0.200		µg/L	1	8/22/2014 6:27:00 PM
Total PCBs	0.898	0.200		µg/L	1	8/22/2014 6:27:00 PM
Surr: Decachlorobiphenyl	74.0	45.1-140		%REC	1	8/22/2014 6:27:00 PM
Surr: Tetrachloro-m-xylene	36.5	30.1-116		%REC	1	8/22/2014 6:27:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1408157**
Date Reported: **8/25/2014**

Client: NVL Labs, Inc.
Collection Date: 8/18/2014 11:00:00 AM
Project: 2012-494
Lab ID: 1408157-002
Matrix: Water
Client Sample ID: **81814-CB6-A**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polychlorinated Biphenyls (PCB) by EPA 8082				Batch ID: 8458		Analyst: NG
Aroclor 1016	2.90	0.200		µg/L	1	8/22/2014 7:06:00 PM
Aroclor 1221	ND	0.200		µg/L	1	8/22/2014 7:06:00 PM
Aroclor 1232	ND	0.200		µg/L	1	8/22/2014 7:06:00 PM
Aroclor 1242	ND	0.200		µg/L	1	8/22/2014 7:06:00 PM
Aroclor 1248	ND	0.200		µg/L	1	8/22/2014 7:06:00 PM
Aroclor 1254	ND	0.200		µg/L	1	8/22/2014 7:06:00 PM
Aroclor 1260	1.19	0.200		µg/L	1	8/22/2014 7:06:00 PM
Aroclor 1262	ND	0.200		µg/L	1	8/22/2014 7:06:00 PM
Aroclor 1268	ND	0.200		µg/L	1	8/22/2014 7:06:00 PM
Total PCBs	4.09	0.200		µg/L	1	8/22/2014 7:06:00 PM
Surr: Decachlorobiphenyl	69.8	45.1-140		%REC	1	8/22/2014 7:06:00 PM
Surr: Tetrachloro-m-xylene	39.8	30.1-116		%REC	1	8/22/2014 7:06:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1408157**
Date Reported: **8/25/2014**

Client: NVL Labs, Inc.
Collection Date: 8/18/2014 11:00:00 AM
Project: 2012-494
Lab ID: 1408157-003
Matrix: Sediment
Client Sample ID: **81814-CB3-S**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polychlorinated Biphenyls (PCB) by EPA 8082				Batch ID: 8416		Analyst: NG
Aroclor 1016	ND	1.58		mg/Kg-dry	1	8/18/2014 4:59:00 PM
Aroclor 1221	ND	1.58		mg/Kg-dry	1	8/18/2014 4:59:00 PM
Aroclor 1232	ND	1.58		mg/Kg-dry	1	8/18/2014 4:59:00 PM
Aroclor 1242	ND	1.58		mg/Kg-dry	1	8/18/2014 4:59:00 PM
Aroclor 1248	ND	1.58		mg/Kg-dry	1	8/18/2014 4:59:00 PM
Aroclor 1254	ND	1.58		mg/Kg-dry	1	8/18/2014 4:59:00 PM
Aroclor 1260	12.3	1.58		mg/Kg-dry	1	8/18/2014 4:59:00 PM
Aroclor 1262	ND	1.58		mg/Kg-dry	1	8/18/2014 4:59:00 PM
Aroclor 1268	ND	1.58		mg/Kg-dry	1	8/18/2014 4:59:00 PM
Total PCBs	12.3	1.58		mg/Kg-dry	1	8/18/2014 4:59:00 PM
Surr: Decachlorobiphenyl	120	50.2-159		%REC	1	8/18/2014 4:59:00 PM
Surr: Tetrachloro-m-xylene	76.3	60.3-134		%REC	1	8/18/2014 4:59:00 PM
Total Metals by EPA Method 6020				Batch ID: 8423		Analyst: TN
Chromium	218	1.15	[RA]	mg/Kg-dry	1	8/20/2014 3:18:45 PM
Copper	609	2.30		mg/Kg-dry	1	8/19/2014 5:18:16 PM
Nickel	311	1.15		mg/Kg-dry	1	8/19/2014 5:18:16 PM
Zinc	5,570	5.76		mg/Kg-dry	1	8/19/2014 5:18:16 PM
Sample Moisture (Percent Moisture)				Batch ID: R16258		Analyst: KZ
Percent Moisture	93.9			wt%	1	8/19/2014 7:49:19 AM

NOTES:
RA - Indicates re-analysis.

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Date: *8/25/2014*

Work Order: 1408157
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID: **MB-8423** SampType: **MBLK** Units: **mg/Kg** Prep Date: **8/19/2014** RunNo: **16276**
Client ID: **MBLKS** Batch ID: **8423** Analysis Date: **8/19/2014** SeqNo: **326981**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	0.100									
Copper	ND	0.200									
Nickel	ND	0.100									
Zinc	ND	0.400									

Sample ID: **LCS-8423** SampType: **LCS** Units: **mg/Kg** Prep Date: **8/19/2014** RunNo: **16276**
Client ID: **LCSS** Batch ID: **8423** Analysis Date: **8/19/2014** SeqNo: **326982**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	73.0	0.100	62.90	0	116	67.9	132				Q
Copper	88.1	0.200	84.20	0	105	74	125.9				
Nickel	335	0.100	301.0	0	111	74.4	125.6				
Zinc	534	0.400	425.0	0	126	72.7	127.3				

NOTES:
Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID: **1408169-001ADUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **8/19/2014** RunNo: **16276**
Client ID: **BATCH** Batch ID: **8423** Analysis Date: **8/19/2014** SeqNo: **326984**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	67.2	0.0835						53.15	23.3	30	Q
Copper	65.8	0.167						57.33	13.8	30	
Nickel	42.9	0.0835						40.23	6.52	30	
Zinc	216	0.334						192.7	11.3	30	

NOTES:
Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1408157
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID: **1408169-001AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **8/19/2014** RunNo: **16276**
Client ID: **BATCH** Batch ID: **8423** Analysis Date: **8/19/2014** SeqNo: **326988**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	98.6	0.0835	41.77	53.15	109	75	125				Q
Copper	91.9	0.167	41.77	57.33	82.7	75	125				
Nickel	81.5	0.0835	41.77	40.23	98.8	75	125				
Zinc	221	0.334	41.77	192.7	66.6	75	125				S

NOTES:
Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).
S - Outlying spike recoveries observed for Zn. A duplicate analysis (MSD) was performed with similar results indicating a matrix effect.

Sample ID: **1408169-001AMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **8/19/2014** RunNo: **16276**
Client ID: **BATCH** Batch ID: **8423** Analysis Date: **8/19/2014** SeqNo: **326989**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	109	0.0835	41.77	53.15	133	75	125	98.62	9.76	30	SQ
Copper	102	0.167	41.77	57.33	108	75	125	91.86	10.8	30	
Nickel	83.3	0.0835	41.77	40.23	103	75	125	81.49	2.20	30	
Zinc	248	0.334	41.77	192.7	132	75	125	220.6	11.7	30	S

NOTES:
Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).
S - Outlying spike recoveries observed for Cr. A duplicate analysis (MS) was performed and recovered within range.

Sample ID: **CCV-8423E** SampType: **CCV** Units: **µg/L** Prep Date: **8/20/2014** RunNo: **16276**
Client ID: **CCV** Batch ID: **8423** Analysis Date: **8/20/2014** SeqNo: **327916**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	106	1.00	100.0	0	106	90	110				

Fremont Analytical

Date: *8/25/2014*

Work Order: 1408157
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID: **CCV-8423F** SampType: **CCV** Units: **µg/L** Prep Date: **8/20/2014** RunNo: **16276**
Client ID: **CCV** Batch ID: **8423** Analysis Date: **8/20/2014** SeqNo: **327921**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	107	1.00	100.0	0	107	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1408157
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID: **LCS-8416**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **8/18/2014**	RunNo: **16256**
Client ID: **LCSS**	Batch ID: **8416**		Analysis Date: **8/18/2014**	SeqNo: **326589**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.928	0.100	1.000	0	92.8	65.8	117				
Aroclor 1260	0.836	0.100	1.000	0	83.6	57	134				
Surr: Decachlorobiphenyl	53.5		50.00		107	50.2	159				
Surr: Tetrachloro-m-xylene	38.5		50.00		76.9	60.3	134				

Sample ID: **LCSD-8416**	SampType: **LCSD**	Units: **mg/Kg**	Prep Date: **8/18/2014**	RunNo: **16256**
Client ID: **LCSS02**	Batch ID: **8416**		Analysis Date: **8/18/2014**	SeqNo: **326590**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.936	0.100	1.000	0	93.6	65.8	117	0.9278	0.923	30	
Aroclor 1260	0.829	0.100	1.000	0	82.9	57	134	0.8356	0.793	30	
Surr: Decachlorobiphenyl	53.1		50.00		106	50.2	159		0		
Surr: Tetrachloro-m-xylene	38.4		50.00		76.8	60.3	134		0		

Sample ID: **1408115-001AMS**	SampType: **MS**	Units: **mg/Kg-dry**	Prep Date: **8/18/2014**	RunNo: **16256**
Client ID: **BATCH**	Batch ID: **8416**		Analysis Date: **8/18/2014**	SeqNo: **326592**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.22	0.124	1.237	0	98.8	61.7	139				
Aroclor 1260	1.09	0.124	1.237	0	87.9	63.1	138				
Surr: Decachlorobiphenyl	68.1		61.87		110	50.2	159				
Surr: Tetrachloro-m-xylene	49.4		61.87		79.8	60.3	134				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1408157
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID: **MB-8416** SampType: **MBLK** Units: **mg/Kg** Prep Date: **8/18/2014** RunNo: **16256**
Client ID: **MBLKS** Batch ID: **8416** Analysis Date: **8/18/2014** SeqNo: **326594**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.100									
Aroclor 1221	ND	0.100									
Aroclor 1232	ND	0.100									
Aroclor 1242	ND	0.100									
Aroclor 1248	ND	0.100									
Aroclor 1254	ND	0.100									
Aroclor 1260	ND	0.100									
Aroclor 1262	ND	0.100									
Aroclor 1268	ND	0.100									
Total PCBs	ND	0.100									
Surr: Decachlorobiphenyl	53.3		50.00		107	50.2	159				
Surr: Tetrachloro-m-xylene	37.8		50.00		75.5	60.3	134				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1408157
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID: **MB-8458** SampType: **MBLK** Units: **µg/L** Prep Date: **8/20/2014** RunNo: **16372**
Client ID: **MBLKW** Batch ID: **8458** Analysis Date: **8/22/2014** SeqNo: **329411**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.200									
Aroclor 1221	ND	0.200									
Aroclor 1232	ND	0.200									
Aroclor 1242	ND	0.200									
Aroclor 1248	ND	0.200									
Aroclor 1254	ND	0.200									
Aroclor 1260	ND	0.200									
Aroclor 1262	ND	0.200									
Aroclor 1268	ND	0.200									
Total PCBs	ND	0.200									
Surr: Decachlorobiphenyl	394		400.0		98.6	45.1	140				
Surr: Tetrachloro-m-xylene	189		400.0		47.3	30.1	116				

Sample ID: **LCS-8458** SampType: **LCS** Units: **µg/L** Prep Date: **8/20/2014** RunNo: **16372**
Client ID: **LCSW** Batch ID: **8458** Analysis Date: **8/22/2014** SeqNo: **329412**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.23	0.200	2.000	0	61.4	38.2	129				
Aroclor 1260	1.96	0.200	2.000	0	97.8	43.3	126				
Surr: Decachlorobiphenyl	361		400.0		90.2	45.1	140				
Surr: Tetrachloro-m-xylene	134		400.0		33.6	30.1	116				

Sample ID: **LCSD-8458** SampType: **LCSD** Units: **µg/L** Prep Date: **8/20/2014** RunNo: **16372**
Client ID: **LCSW02** Batch ID: **8458** Analysis Date: **8/22/2014** SeqNo: **329413**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.994	0.200	2.000	0	49.7	38.2	129	1.228	21.0	30	
Aroclor 1260	1.67	0.200	2.000	0	83.3	43.3	126	1.956	16.0	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Date: *8/25/2014*

Work Order: 1408157
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID: **LCSD-8458**	SampType: **LCSD**			Units: **µg/L**		Prep Date: **8/20/2014**		RunNo: **16372**		
Client ID: **LCSW02**	Batch ID: **8458**					Analysis Date: **8/22/2014**		SeqNo: **329413**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Decachlorobiphenyl	331		400.0		82.7	45.1	140		0		
Surr: Tetrachloro-m-xylene	107		400.0		26.8	30.1	116		0		S

NOTES:
S - Surrogate outside recovery limits. All other laboratory and field samples were within range.

Sample ID: **1408157-001AMS**	SampType: **MS**			Units: **µg/L**		Prep Date: **8/20/2014**		RunNo: **16372**		
Client ID: **81814-CB3-A**	Batch ID: **8458**					Analysis Date: **8/22/2014**		SeqNo: **329415**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.76	0.200	2.000	0.4396	66.0	45.5	118				
Aroclor 1260	2.87	0.200	2.000	0.4588	121	50.8	129				
Surr: Decachlorobiphenyl	293		400.0		73.2	45.1	140				
Surr: Tetrachloro-m-xylene	182		400.0		45.5	30.1	116				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Sample Log-In Check List

Client Name:	**NVL**	Work Order Number:	**1408157**
Logged by:	**Clare Griggs**	Date Received:	**8/18/2014 2:40:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all coolers received at a temperature of >0°C to 10.0°C	Yes ☐	No ☑	NA ☐
	Samples received straight from field.			
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is the headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☑	No ☐	NA ☐

Person Notified:	Munaf	Date:	8/18/2014
By Whom:	Clare Griggs	Via:	☐ eMail ☑ Phone ☐ Fax ☐ In Person
Regarding:	Sample name clarification for #2		
Client Instructions:	Should be "81814-CB6-A" not "81814-MH6-A'		

19. Additional remarks:

Item Information

Item #	Temp °C	Condition
Cooler	15.5	
Sample	16.9	

Fremont Analytical

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Laboratory Project No (internal): 1408157

Date: 8/18/14

Page: 1 of: 1

Client: NVL LABS
Address: 4708 AURORA AVE N.
City, State, Zip: SEATTLE, WA, 98103 Tel: 206-547-0100

Project Name: 2012-494
Location: 3600 AIRPORT WAY S. SEATTLE, WA
Collected by: MARCUS GLADDEN

Reports To (PM): Fax: Email: Project No:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	VOC (EPA 8260)	GX/BTEX by EPA 8021b	BTEX by 8260	Gasoline Range Organics	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics	SEMI VOC (EPA 8270 - SIM)	PAH (EPA 8270)	PCBs (EPA 8082)	Cl Pesticides (EPA 8081)	Cl Herbicides (EPA 8151A)	Metals* (6020 / 200.8)	Total (T)	Dissolved (D)	Anions (IC)**	Comments/ Depth
1 81814-CB3-A	8/18/14	11:00	H_2O								X								USE FOR MS SPIKE
2 81814-MH6-A	8/18/14	11:00	H_2O								X								USE FOR MS SPIKE
3 81814-CB3-S	8/18/14	11:00	SOIL								X			X					
4																			
5																			
6																			
7																			
8																			
9																			
10																			

*Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

**Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (A fee may be assessed if samples are retained after 30 days.)

Special Remarks:

Relinquished	Date/Time	Received	Date/Time
x [signature]	8/18/14 1440	x [signature]	8-18-2014 19:40
x		x	

TAT --> Next Day 2 Day 3 Day STD

please email: marcus.g@nullabs.com

Distribution: White - Lab, Yellow - File, Pink - Originator